



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/996,864

11/19/2001

Cheng-Ku Chen

67,200-600

4851

7590

11/22/2004

TUNG & ASSOCIATES

Suite 120

838 W. Long Lake Road

Bloomfield Hills, MI 48302

EXAMINER

PHAM, LONG

ART UNIT

PAPER NUMBER

2814

DATE MAILED: 11/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/996,864

Applicant(s)

CHEN ET AL.

Examiner

Long Pham

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 October 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-17,19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-17, 19, and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Rejections and/or objections as previously applied

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1, 3, and 4-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Aminpur et al. (US '726).

With respect to claim 1, Aminpur et al. teaches a semiconductor device where during fabrication the semiconductor device comprises:

a primary layer 515 having a desired or specification or design dimension, fig. 5;

a lower layer 540 over the primary layer, fig. 5;

an upper layer 550 over the lower layer, the upper layer having a high-etching selectivity as compared to the lower layer and the upper layer and lower layer have substantially identical width, fig.5 and col. 6, lines 53-55; and

an etching-stop layer 510 between the lower layer and primary layer, fig. 8 and associated text (that is during the formation of the gate 815).

Note that the process limitations in device claim 1 are given no weight in the patentability determination unless they produce some structural or material differences.

With respect to claim 3, Aminpur et al. further teach the primary layer comprises of a polysilicon layer. See col. 5, lines 10-15.

With respect to claims 4-7, Aminpur et al. further teach the lower and upper layers are made of Si₃N₄, SiON, or SiO₂. See col. 5, lines 40-50.

1. Claims 17, 19, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Aminpur et al. (US '726).

With respect to claim 17, Aminpur et al. teaches a semiconductor device comprises:

a primary layer 515 having a desired or specification or design dimension, fig. 5;

a lower layer 540 over the primary layer, fig. 5;

an upper layer 550 over the lower layer, the upper layer having a high-etching selectivity as compared to the lower layer and the upper layer and lower layer have substantially identical width, fig.5 and col. 6, lines 53-55; and

an etching-stop layer 510 between the lower layer and primary layer, fig. 8 and associated text (that is during the formation of the gate 815).

Note that the process limitations in device claim 17 are given no weight in the patentability determination unless they produce some structural or material differences.

With respect to claims 19-20, Aminpur et al. further teach the lower and upper layers are made of Si_3N_4 , SiON , or SiO_2 . See col. 5, lines 40-50.

Response to Arguments

2. Applicant's arguments filed 10/13/04 have been fully considered but they are not persuasive. See below.

In response to the applicant's arguments on page 6 of the applicant's response dated 10/13/04, it is submitted that the fig. 5, **NOT fig. 6 or the end product of Aminpur**, reads on the **end product** (lower and upper layers having identical width) of the **claimed** invention. Further, it is submitted that fig. 5 shows the lower and upper layers having identical width.

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

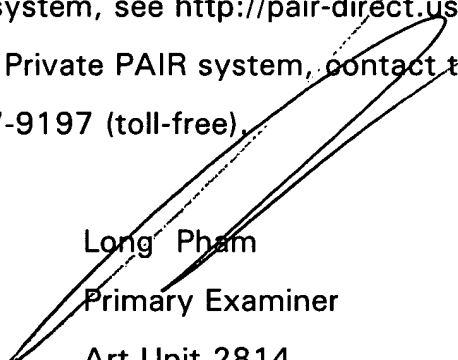
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Long Pham whose telephone number is 571-272-1714. The examiner can normally be reached on M-F, 7:30AM-3:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on 571-272-1705. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2814

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Long Pham
Primary Examiner
Art Unit 2814

LP